



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/672,532	09/26/2003	Michael T. Angus	DMNZ 2 00055	3727
7590 03/23/2006			EXAMINER	
Christopher B. Fagan Fay, Sharpe, Fagan, Minnich & McKee, LLP 7th Floor 1100 Superior Avenue Cleveland, OH 44114-2518			HOOK, JAMES F	
			ART UNIT	PAPER NUMBER
			3754	

DATE MAILED: 03/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

6

<b>Office Action Summary</b>	<b>Application No.</b> 10/672,532	<b>Applicant(s)</b> ANGUS, MICHAEL T.	
	<b>Examiner</b> James F. Hook	<b>Art Unit</b> 3754	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 January 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) 34-41 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>9-26-03</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Election/Restrictions***

Claims 34-41 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on January 3, 2006.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 4, 16-23, 25, and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Vaill. The patent to Vaill discloses the recited fluid line connector assembly comprising a length of flexible metal corrugated tubing 12 having generally a cylindrical tubing end and an end fitting 5 secured to the end of the tubing by brazing material, the fitting can be seen to have an inside and outside wall forming a passage through the fitting, a flexible sheath 17 formed of woven wires can be provided on the outside of the cylindrical tubing and held thereto utilizing both an integral sleeve near 8, and an outer collar 18, and a plurality of threads 6 are provided on the fitting.

### ***Claim Rejections - 35 USC § 103***

Art Unit: 3754

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 3, 5, and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vaill in view of Fentress. The patent to Vaill discloses all of the recited structure with the exception of including a non corrugated portion on the ends of the corrugated tubing. The patent to Fentress discloses that it is old and well known in the art to form corrugated tubes 14 provided with end fittings 50 and woven jackets 15 including bands 54, with a portion 14a of the corrugated tube that is not corrugated to allow for connection to the fittings. It would have been obvious to one skilled in the art to modify the end of the corrugated tubing in Vaill to have a non corrugated section as suggested by Fentress as such would allow for a more reliable connection between the fitting and the corrugated tubing thereby preventing premature failure and replacement costs.

Claims 7-10 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vaill in view of Diebolt. The patent to Vaill discloses all of the recited structure with the exception of forming the end fittings of a specific material such as steel that is plated by an electroless nickel plating method. The use of low carbon steel is considered a mere choice of mechanical expedients. The patent to Diebolt discloses that it is old and well known in the art of threaded connectors to form such of steels and to plate the steel with an electroless nickel plating layer as such would protect the ends. It would have been obvious to provide the connectors in Vaill with an electroless nickel plating layer

Art Unit: 3754

as suggested by Diebolt where such would help protect the connectors from corrosion thereby extending their life and the life of the hose and thereby saving money.

Claims 11-15, and 27-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vaill in view of Maxwell. The patent to Vaill discloses all of the recited structure with the exception of describing the make up of the brazing material. The patent to Maxwell discloses the recited use of a brazing material to connect metal pipes to further connecting structure using a material having the materials in the cited ranges set forth in applicants claims 12-15, and 28-31 which have the properties required in claims 11 and 27. It would have been obvious to one skilled in the art to substitute for the brazing material in Vaill to take any form as is known in the art for connecting metals, such as those set forth in Maxwell as such would provide for an adequate connection between dissimilar metals as suggested by Maxwell thereby preventing failure of the joint and saving money in replacement costs.

Claims 32 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vaill in view of Maxwell as applied to claims 11-15 and 27-31 above, and further in view of Diebolt. The patent to Vaill as modified discloses all of the recited structure with the exception of forming the end fittings of a specific material such as steel that is plated by an electroless nickel plating method. The use of low carbon steel is considered a mere choice of mechanical expedients. The patent to Diebolt discloses that it is old and well known in the art of threaded connectors to form such of steels and to plate the steel with an electroless nickel plating layer as such would protect the ends. It would have been obvious to provide the connectors in Vaill as modified with an electroless nickel

Art Unit: 3754

plating layer as suggested by Diebolt where such would help protect the connectors from corrosion thereby extending their life and the life of the hose and thereby saving money.

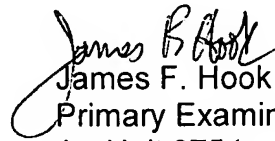
### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The references to Lake, Copeland, Lalikos, McIntosh, Fujiyoshi, and Bessette disclosing state of the art tubes and connections therefore. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James F. Hook whose telephone number is (571) 272-4903. The examiner can normally be reached on Monday to Wednesday, work at home Thursdays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Mar can be reached on (571) 272-4906. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3754

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
James F. Hook  
Primary Examiner  
Art Unit 3754

JFH